

Title (en)
Measuring scale with a reflective phase jitter

Title (de)
Maßstab mit einem reflektierenden Phasengitter

Title (fr)
Echelle dotée d'un réseau de phase réfléchissant

Publication
EP 1865280 A1 20071212 (DE)

Application
EP 07002493 A 20070206

Priority
DE 102006027047 A 20060610

Abstract (en)
The rod (1) has a reflective phase grating provided with alternating high and low refractive layers (6, 7, 5a, 5b) in a layer stack (3). The stack is arranged on a substrate (2). The high and low refractive layers are made of silicon and silicon dioxide, respectively. A base layer (4) e.g. nickel-chromium layer, facing the substrate is provided in the stack. Layer thickness in the stack is selected such that a light used for sampling the rod is diffracted in a diffracting arrangement. The substrate is made of zerodur(RTM: Glass ceramic).

Abstract (de)
Es wird ein Maßstab mit einem reflektierenden Phasengitter beschrieben, das abwechselnd hoch brechende Schichten (6, 7) und niedrig brechende Schichten (5a, 5b) als reflektierenden, auf einem Substrat (2) angeordneten Schichtstapel (3) aufweist. Die hoch brechenden Schichten (6, 7) bestehen aus Silizium, die niedrig brechenden Schichten (5a, 5b) aus Siliziumdioxid.

IPC 8 full level
G01B 5/18 (2006.01); **G01D 5/347** (2006.01)

CPC (source: EP)
G01D 5/34707 (2013.01); **G01D 5/38** (2013.01)

Citation (search report)
• [AD] EP 0773458 A1 19970514 - HEIDENHAIN GMBH DR JOHANNES [DE]
• [A] DE 10150099 A1 20030417 - HEIDENHAIN GMBH DR JOHANNES [DE]

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1865280 A1 20071212; EP 1865280 B1 20090812; AT E439567 T1 20090815; CN 101086453 A 20071212; CN 101086453 B 20110323; DE 102006027047 A1 20071213; DE 502007001273 D1 20090924; ES 2329621 T3 20091127

DOCDB simple family (application)
EP 07002493 A 20070206; AT 07002493 T 20070206; CN 200710079749 A 20070307; DE 102006027047 A 20060610; DE 502007001273 T 20070206; ES 07002493 T 20070206